Review Comments
Basin 18 Supplemental Sampling and Analysis Plan
Source Control Evaluation
Burgard Industrial Park
Portland, Oregon
Dated October 16, 2015

Submitted December 15, 2015

Following are the United States Environmental Protection Agency's (EPA) comments on the October 16, 2015 document entitled, Basin 18 Supplemental Sampling and Analysis Plan, Source Control Evaluation, Portland, Oregon (SSAP) prepared by Bridgewater Group, Inc. The review comments include two site-specific plans that are attachments to the SSAP document. The first attachment, dated October 21, 2015, is entitled: Attachment A – Sampling and Analysis Program, Dunkin and Bush Property. The second attachment, dated November 20, 2015, is entitled: Attachment B – Sampling and Analysis Program, Felton Property.

The stormwater system is comprised of catch basins and roof drains that convey stormwater to private industrial outfall OF18 at the head of the International Terminal slip of Port of Portland's Terminal 4, located at approximate RM3.5E. Approximately 30 percent of Basin 18 is located within the Burgard Industrial Park (BIP), which is identified as ECSI# 5324. The Dunkin and Bush property and Felton Property are both located within Basin 18.

EPA understands the purpose of the SSAP was to present the overall objective of the Basin 18 supplemental Source Control Evaluation (SCE) and the methods that will be employed to collect and analyze stormwater, stormwater sediments, and soil samples within Basin 18 as proposed sampling and analysis programs for the Dunkin & Bush and Felton Properties.

General Comments

1. A clear description of all source control measures taken at the site should be included in the SSAP. This description should include when the measures were implemented, the party responsible for implementation, and ongoing maintenance activities.

2. Previous sampling at the site should be summarized and documents containing analytical results of these samples should be referenced. Understanding conditions prior to implementation of source control measures is important in evaluating effectiveness.

3. Roof drain stormwater sampling and erodible soil sampling are not sufficient evidence to determine whether stormwater runoff is a COI pathway to the Willamette River. Stormwater sampling from representative locations should be implemented following JSCS guidelines and screened against SLVs and PRGs for surface water.

Specific Comments

Basin 18 Supplemental Sampling and Analysis Plan Source Control Evaluation

1. Basin 18 Description:

    a. Runoff directions from all impervious surfaces including buildings should be provided in Figure 3 and summarized in the text.

    b. Figure 3 should clearly indicate which portions of Basin 18 are included within the Burgard Industrial Park.

    c. It is unclear from the text which portions of Basin 18 are impervious. This information should be clearly described in the text and delineated on Figure 3.

2. Project History and SSAP Objective:

    a. The text should clearly describe which portions of Basin 18 are and are not associated with the SSAP. It is unclear from the text in this section if the Basin 18 supplemental sampling and analysis plan (SSAP) refers to all of Basin 18 or only the portion within the BIP. It appears the bulleted documents only cover the BIP portion of Basin 18, but subsequent paragraphs do not specify whether the SSAP covers all of Basin 18 or just a subset. In addition, Figure 3 principally shows stormwater features for areas outside of the BIP.

    b. A description of the source control measures (SCM) and best management practices (BMPs) that have been implement within Basin 18, if any, should be provided somewhere in the SSAP. These descriptions should include when the SCMs and BMPs were implemented, the party responsible for implementation, any previous effectiveness monitoring, and ongoing maintenance activities.

3. Storm Water Sampling Conditions:

    a. The JSCS guidance (Section D.5.2) states that at least four separate storm events per year should be sampled for screening purposes, and two of these storms should represent "first flush" conditions (i.e. within the first 30 minutes of stormwater discharge). The SSAP should clearly state the number of samples to be collected. There should be a minimum of four sampling events, and two of these storms should represent "first flush" conditions.

    b. The JSCS guidance (Section D.5.3) states that storm events should be targeted that have a minimum predicted rainfall volume of >0.2" per event, and the expected duration of the storm event should be a minimum of 3 hours. These criteria for selecting stormwater sampling events should be added to the SSAP.

    c. The type of sample that will be collected (i.e., grab or composite) should be clarified. If a composite sample is collected, the SSAP should specify whether it will be a time-weighted or flow-weighted sample.

d. The location(s) of stormwater sampling, as described in the SSAP attachments, should be summarized. This should include a brief description of the sampling location(s) within the text and a callout for each sampling location in Figure 3.

e. Sampling location type (i.e., outfall, manhole, catch basin, drainage ditches, detention pond, or sheet flow) should be identified, and a brief description of sampling methods for each location type should be included.

4. Storm Water Solids Sampling:

a. The location(s) of solids sampling should be clearly identified. This should include a description of the sampling location(s) within the text and a callout for each sampling location in Figure 3.

b. The timing and frequency of solids sampling should be described.

c. The methodology for solids sampling should be described.

Attachment A – Sampling and Analysis Program Dunkin & Bush Property

1. Pathway Analysis:

a. A brief description of the Dunkin & Bush property should be included, containing at a minimum, the size of the property, industrial activities, its location relative to the BIP, and whether it receives any overland flow from adjacent properties. Figure A-1 should outline the boundary of the Dunkin & Bush property to demonstrate its relation to the BIP.

b. Figure A-2 should indicate the direction of stormwater flow on all impervious surfaces, and note the size, location, and flow direction of storm drain lines. Figure A-2 should also indicate whether any overland flow is entering or exiting the property.

c. A description of any potential contaminant sources at the site should be provided, as well as SCMs being taken to prevent contaminant transport in stormwater runoff.

2. Conveyance Pipe and Catch Basin Cleanout Solids Sampling:

a. A more detailed description of the method and location of solids sampled during sediment removal should be provided. To properly characterize stormwater solids at the site, composite samples should be collected from each catch basin and analyzed independently.

b. Figure A-2 shows three catch basins within the property, and two catch basins at the property boundary. If overland flow from the Dunkin & Bush property drains to either of the catch basins on the property boundary, these basins should be included in the sampling program. These catch basins should be labeled on Figure A-2 and described in the text.

3. Roof Drain Storm Water Sampling

a. Refer to above Specific comments 3a, 3b, and 3c on the Basin 18 Supplemental Sampling and Analysis Plan Source Control Evaluation regarding stormwater sampling conditions. To properly characterize stormwater discharges from the site, samples should be collected according to JSCS guidance.

4. Storm Water Pathway Erodible Soil Sampling

   a. The location of each soil sample should be clearly defined in the text and shown on Figure A-2. These samples should be taken at representative areas where overland flow occurs during rainfall events and erosion could result.

   b. The soil sampling method should consist of collecting composite soil samples in representative locations. This method should be clearly described in the text.

   c. Stormwater runoff samples should be collected from CB3, adhering to JSCS stormwater sampling guidelines. Stormwater runoff sampling is preferred over soil sampling to evaluate contaminate transport to the Willamette River via the stormwater pathway.

5. Sample Laboratory Analysis:

   a. The Basin 18 Sampling Plan states that stormwater samples will be analyzed for PCB Aroclors, homologs, and congeners. Similarly, the Dunkin & Bush property stormwater samples should be analyzed for PCB Aroclors, homologs, and congeners. These analyses were requested by DEQ and are considered COIs for Basin 18.

Attachment B – Sampling and Analysis Program Felton Property

1. Pathway Analysis

   a. A brief description of the Felton property should be included, containing at a minimum the size of the property, industrial activities, its location relative to the BIP, and whether it receives any overland flow from adjacent properties. Figure B-1 should outline the boundary of the Felton property to demonstrate its relation to the BIP.

   b. Figure B-2 should indicate the direction of stormwater flow on all impervious surfaces, including rooftops, and should identify the surfaces that are unpaved. Figure B-2 should also indicate whether any overland flow is entering or exiting the property.

   c. A brief description of the periodic maintenance program for catch basins should be provided. This description should include the date the program was implemented, results of any sampling efforts, the type of maintenance performed, and the frequency of maintenance activities.

   d. A description of any potential contaminant sources at the site should be provided, as well as SCMs being taken to prevent contaminant transport in stormwater runoff.

2. Roof Drain Storm Water Sampling

a. Refer to above Specific comments 3a, 3b, and 3c on the Basin 18 Supplemental Sampling and Analysis Plan Source Control Evaluation regarding stormwater sampling conditions. To properly characterize stormwater discharges from the site, samples should be collected according to JSCS guidance.

3. Storm Water Pathway Erodible Soil Sampling

   a. The locations of all erodible soil surfaces on the site should be identified in Figure B-2, as well as the direction of stormwater flow on these surfaces. It is unclear from Figure B-2 if the four sampling areas identified are representative of all erodible soil that could be entering the stormwater system. If erodible soil is being deposited into catch basins other than those identified, additional sampling may be needed.

   b. Stormwater runoff samples should be collected from locations representative of the various site conditions and should adhere to JSCS stormwater sampling guidelines. Representative stormwater sampling locations may include storm drain lines at downstream catch basins and the manhole in North Sever Road (if found). Stormwater runoff sampling is preferred over soil sampling to evaluate contaminate transport to the Willamette River via the stormwater pathway.

4. Sample Laboratory Analysis: The Basin 18 Sampling Plan states that stormwater samples will be analyzed for PCB Aroclors, homologs, and congeners. Similarly, the Felton property stormwater samples should be analyzed for PCB Aroclors, homologs, and congeners. These analyses were requested by DEQ and are considered COIs for Basin 18.